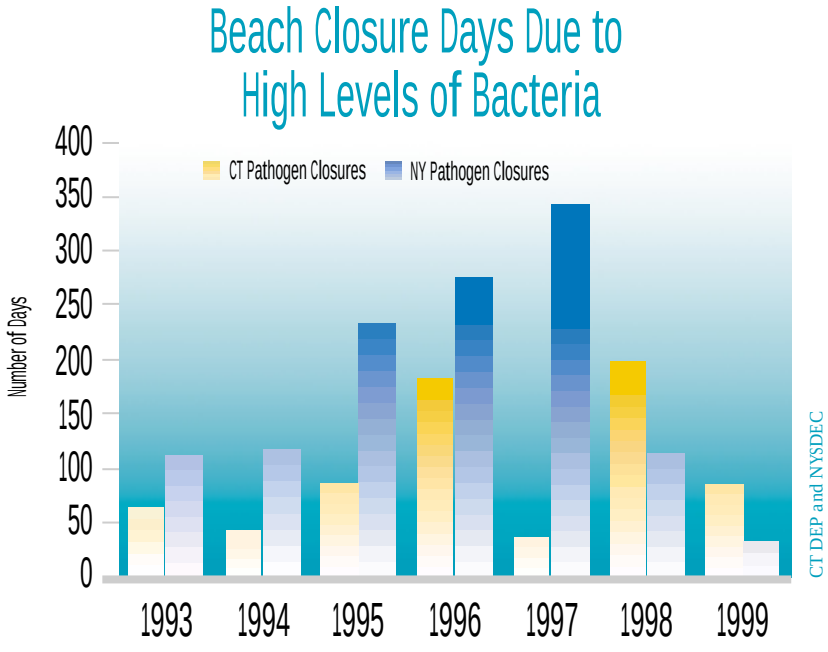
PATHOGENS

Pathogens, which are disease-causing bacteria and viruses, can enter Long Island Sound from inadequately treated human sewage and domestic and wild animal wastes. Some of the primary sources of pathogens to the Sound are older sewer systems that have combined stormwater and sanitary systems that overflow during rainfalls (called combined sewer overflows), failing septic systems, illegal connections to storm sewers, STP malfunctions, and vessel sewage discharges. To protect public health, beaches are periodically closed, and many of the Sound's prime shellfish beds are closed, due to indications of pathogen contamination. People can become sick by swimming in waters contaminated by pathogens or by eating raw or partially cooked shellfish that contain pathogens. As a result, pathogen contamination can seriously affect the region, economically and socially.



CT DEP and NYSDEC

Yearly variations are a product of rainfall patterns and incidents such as sewer-line ruptures. In 1999, the relatively dry summer led to significantly fewer closings than in previous years.

Beach Closure Days

There are 240 monitored beaches along Long Island Sound (131 in Connecticut and 109 in New York) that provide valued recreational opportunities. Combined sewer overflows and stormwater runoff associated with rainfall events are the major causes of beach closures. As a result, the number of days beaches are closed to swimming increases with increased rainfall. Over time, however, the number of beach closure days can be used to assess the effectiveness of pathogen control activities, such as:

- abatement of combined sewer overflows;
- control of stormwater runoff and other nonpoint pollution; and,
- minimizing mechanical breakdowns in sewer systems and STPs that result in releases of untreated sewage.

Are Fish and Wildlife Populations More Abundant?

The coastal environs of Long Island Sound represent a unique and highly productive ecosystem. A diverse array of living resources ranges from microscopic plants and animals that drift with the currents to seaweeds and economically important finfish, shellfish, and crustaceans. Many other types of wildlife, such as birds, sea turtles, and marine mammals, spend all or part of their lives in the Sound, on its shores, or in its watershed.

The abundance and diversity of living resources such as oysters, clams, lobsters, finfish, and birds are indicators of ecosystem health and human impact. These organisms respond to environmental conditions, habitat availability, and disease. These living resources contribute billions of dollars to the regional economy through commercial and recreational fishing. Moreover, the opportunity to observe and appreciate the Sound's plants and animals is in itself an enjoyment for millions of the region's residents and visitors.

SHELLFISH

Long Island Sound produces some of the finest shellfish in the country. More than 60,000 acres of shellfish grounds are cultivated in Connecticut's coastal water by the aquaculture industry with additional acres cultivated in New York. Although oysters are the dominant commercial shellfish resource in the Sound, commercial and recreational shellfishers also harvest hard clams (or quahogs), soft-shell clams (or steamers), bay scallops, blue mussels, surf clams, and razor clams.

Photo by CT DEP